

**METHOD AND APPARATUS FOR DETECTION OF TRANSMISSION UNIT
LOSS AND/OR REPLICATION**

ABSTRACT OF THE DISCLOSURE

One embodiment of the disclosures made herein is a method of detecting a transmission unit fault condition in a network system. In accordance with such a method, an operation is performed for designating transmission units received at a first counting location of a datapath, during a first duration consisting of a first specified counting interval and a first specified settling interval after the first specified counting interval elapses, as first designated transmission units. An operation is performed for determining a first datapath ingress transmission unit count for the first designated transmission units at a first counting location during the first duration. An operation is performed for determining a first datapath ingress transmission unit count, an operation is performed for determining a first datapath egress transmission unit count for the first designated transmission units at a second counting location of the datapath during the first duration. After determining the first datapath ingress transmission unit count and the first datapath egress transmission unit count, an operation is performed for indicating a transmission unit fault condition associated with the first specified counting interval when a difference is determined between the first datapath ingress transmission unit count and the first datapath egress transmission unit count after the first specified settling interval elapses.